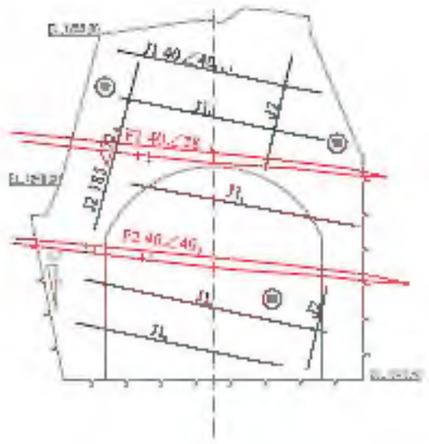
Geological mapping of slope for diversion tunnel inlet

Scale 1:100



Legend

- Mi+Qu Sch — Interbedded Mica Schist and Quartz-Schist
- Moderately weathered
- Joint number and attitude (Dip direction/Dip)
- Fault number and attitude (Dip direction/Dip)
- Dripping

Summary of Geological Conditions	
Slope Elevation	EL.1243.50-EL.1255.67
Rock types	Mi+Qu Sch
Rock hardness	Medium hard rock
Degree of weathered	Moderately weathered
Rock attitude (Dip direction/dip)	40° ∠40°
Rock mass classification	Ⅲ
Groundwater situation	Dry local dripping

STAKE	TUNNEL	ROCTYPEK	UCS	GROUND WATER	RQD	Jv	Jn	Jr	Ja	Jw	SRF	$Q=\frac{RQD}{Jn}\times\frac{Jr}{Ja}\times\frac{Jw}{SRF}$	ROCKMASS CLASS	DATE
	DIRECTION	Mi+Qu Sch		GW1	60	16.6	6	1	1	1	2.5	4	Ⅲ	2022.1.16

NO	Occurrence		SEPARATION (m)	JOINTS GROUP		PERSISTENCE	ROUGHNESS/ APPEARANCE	FILLING	WEATHER OF ROCK WALL	FAULT	
	Dip direction	Dip angle		SPACING	NUMBER					INFLUENCEDZONE (m)	NATURE
J1	40	40	C1	SP1	15	C3	R2	F3、F4	W3		
J2	185	72	C2	SP1	8	C3	R2	F3、F4	W3		
F1	40	25				C5	R2	F9、F12	W3	0.1-0.3	FC2
F2	40	40				C5	R4	F9、F12	W3	0.1-0.3	FC2

UCS	
Very high	>250
High	100-250
medium high	50-100
Moderate	25-50
Low	5-25
Very low	1-5
RQD%	
Excellent quality	90-100%
Good quality	75-90%
Fair quality	50-75%
Poor quality	25-50%
Very poor quality	<25%
GROUND WATER CONDITION	
GW1	Completely dry
GW2	Damp
GW3	Wet
GW4	Dripping
GW5	Flowing

SEPARATION(APERATURE)	SPACING OF JOINTS	PERSISTENCE	ROUGHNESS/APPEARENCE	FILLING	FAULT NATURE
C0:Very tight <0.1mm C1:Tight 0.1-0.5mm C2:open 0.5-2.5mm C3:open 2.5-10mm C4:Wide 10-30mm C5:Very wide >30mm	SP1:VERY WIDE >2m SP2:WIDE 0.6-2m SP3:200-600mm SP4:60-200mm SP5:<60mm	C1:Very Low <1m C2:Low 1-3m C3:modium 3-10m C4:High 10-20m C5:Very high >20m E0: Left wall E1: Top wall E2: Right wall	R1:very rough surfaces R2:rough surfaces R3:slighly rough surfaces R4:smooth surfaces R5:slickensided surfaces A1:planar A2:stepped A3:undulating	F1:rock sillar F2:rock silver F3:rock fragments F4:rock powder F5:Calcium film F6:Calcite vein F7:Quartz vein F8:Breccia F9:Cataclastic F10:Mylonite F11:Fault clay F12:Shied rock F13:argillized seam F14:clay course F15: weak interealsied layers silicized F16: Fractured zone	FC1:downthrown fault FC2:upthrown fault FC3:strike-slip fault FC4: Crushed bedding plane (zone) FC5:Alteration zone FC6: fault inclusion

WEATHER OF ROCK WALL

W1:unweathered W2:slighly weathered

W3:moderately weathered W4:highly weathered

NOTE

FOR INFORMATION

Upper Trishuli-1 HEP (216MW)

NWEDC

TRACTEBEL

Dongfang Electric International & Construction

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